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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,120	03/30/2001	Gabriel G. Montero	RSW9-2001-0063-US1	9260
46270	7590	12/31/2007		
IBM CORPORATION (SYL-RSW) C/O SYNNESTVEDT & LECHNER LLP 1101 MARKET STREET, SUITE 2600 PHILADELPHIA, PA 19107			EXAMINER GOLD, AVIM	
			ART UNIT 2157	PAPER NUMBER
			MAIL DATE 12/31/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

09/823,120

Applicant(s)

MONTERO ET AL.

Examiner

Avi Gold

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This action is responsive to the appeal brief filed on October 5, 2007. Claims 1-24 are pending.

#### ***Response to Amendment***

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 11 and 12 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claims 11 and 12 recite the limitation "said database". There is insufficient antecedent basis for this limitation in the claim.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:  
  
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Courts et al., U.S. Patent No. 6,076,108, in view of Prabandham et al., U.S. Patent No. 6,701,438, further in view of Dharmarajan, U.S. Patent No. 7,010,605.

Courts teaches the invention substantially as claimed including a system and method for maintaining states for user sessions with a web system (see abstract).

As to claim 1, Courts teaches a server system comprising:

- at least one server including a local memory (col. 9, lines 30-35, Courts discloses state information stored as session data in the session cache);
- a second memory having a database, said memory being accessible (col. 9, lines 36-52, Courts discloses session data stored in a global session server after the web page is built);
- a first computer program adapted to store in a memory local to said server running (col. 9, lines 30-52);
- a second computer program adapted to write to said database a copy (col. 9, lines 30-52).

Courts fails to teach the limitation further including a plurality of Java Virtual Machines (JVMs) running on at least one server; storing HttpSession objects for http sessions being handled by JVMs; a program storing JVM HttpSession data for each http session handled by said JVM; writing a copy of the HttpSession data for each http session at a designated time that is a function of a predetermined time interval since a last write to a database of HttpSession object data for said http session.

However, Prabandham teaches methods and apparatus for providing customizable security and logging modules in a server environment (see abstract). Prabandham teaches the use of Java servlets, dealing with http requests, in Java Virtual Machines on servers (col. 5, lines 42-67; col. 6, lines 1-7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Courts in view of Prabandham to use a plurality of Java Virtual Machines (JVMs) running on at least one server; storing HttpSession objects for http sessions being handled by JVMs; a program storing JVM HttpSession data for each http session handled by said JVM; and writing a copy of the HttpSession data for each http session. One would be motivated to do so because it allows for dynamic content and interactivity.

Courts and Prabandham fail to teach the limitation further including said designated times being a function of a predetermined time interval since a last write to said database of data for said sessions.

However, Dharmarajan teaches a method and apparatus for encoding session data utilized by a server computer (see abstract). Dharmarajan teaches the use of a session timer based on the last transmission sent and that session timer being set to elapse after a predetermined amount of time (col. 13, lines 3-35).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Courts and Prabandham in view of Dharmarajan to use designated times being a function of a predetermined time interval since a last write to said

database of data for said sessions. One would be motivated to do so because it allows for the data to be periodically written to the database (col. 13, lines 42-45).

Regarding claim 2, Courts, Prabandham, and Dharmarajan teach the server system of claim 1 further comprising a third computer program adapted to write to said database a copy of said HttpSession object data for each said http session at the time the http session is initiated (Courts, col. 9, lines 30-52).

Regarding claim 3, Courts, Prabandham, and Dharmarajan teach the server system of claim 2 wherein said plurality of JVMs are running on a plurality of servers (Prabandham, col. 5, lines 42-67; col. 6, lines 1-7).

Regarding claim 4, Courts, Prabandham, and Dharmarajan teach the server system of claim 3 wherein said writes to said database are performed at the end of a corresponding servlet service method (Courts, col. 9, lines 30-52).

Regarding claim 5, Courts, Prabandham, and Dharmarajan teach the server system of claim 4 wherein said server system services the World Wide Web (Courts discloses the global session server providing information to servers in the web system, col. 5, lines 8-13).

Regarding claim 7, Courts, Prabandham, and Dharmarajan teach the server system of claim 1 wherein said second program polls said session objects stored in said memories local to said JVMs to determine if said predetermined time interval has passed since they have been updated and wherein said second program is adapted to write to said database only copies of said HttpSession objects that have been updated within said predetermined time interval (Dharmarajan, col. 13, lines 3-35).

Regarding claim 8, Courts, Prabandham, and Dharmarajan teach the server system of claim 7 wherein said second computer program is invoked at predetermined intervals (Dharmarajan, col. 13, lines 3-35).

Regarding claim 9, Courts, Prabandham, and Dharmarajan teach the server system of claim 1 wherein said time interval is configurable (Dharmarajan, col. 13, lines 3-35).

Regarding claim 10, Courts, Prabandham, and Dharmarajan teach the server system of claim 9 wherein said time interval is between ten seconds and five minutes (Dharmarajan, col. 13, lines 3-35).

6. Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Courts, Prabandham, and Dharmarajan further in view of Ng et al., U.S. Patent No. 6,745,387.

Courts teaches the invention substantially as claimed including a system and method for maintaining states for user sessions with a web system (see abstract). Prabandham teaches the invention substantially as claimed including methods and apparatus for providing customizable security and logging modules in a server environment (see abstract). Dharmarajan teaches the invention substantially as claimed including a method and apparatus for encoding session data utilized by a server computer (see abstract).

As to claims 6 and 15, Courts, Prabandham, and Dharmarajan teach the server system and method of claims 5 and 14.

Courts, Prabandham, and Dharmarajan fail to teach the limitation further wherein said Java servlet APIs are J2EE servlet APIs.

However, Ng teaches a method for using a transaction service synchronization interface to perform container internal state clean up after a transaction has completed (see abstract). Ng teaches the use of J2EE (col. 3, lines 8-28).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Courts, Prabandham, and Dharmarajan in view of Ng to use J2EE servlet APIs. One would be motivated to do so because it is a well-known and used platform for constructing Java technology based applications.



7. Claims 11-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Courts et al., U.S. Patent No. 6,076,108, further in view of Dharmarajan, U.S. Patent No. 7,010,605.

Courts teaches the invention substantially as claimed including a system and method for maintaining states for user sessions with a web system (see abstract).

As to claim 11, Courts teaches a method of a method of maintaining session data in a server system servicing a network, said server system maintaining state data pertaining to sessions, said method comprising the steps of:

(1) storing data for each session in a memory local to a server servicing said session (col. 9, lines 30-35, Courts discloses state information stored as session data in the session cache);

(2) writing a copy of said data for each said session stored in said local memory into a central memory accessible to all servers of said server system at designated times (col. 9, lines 36-52, Courts discloses session data stored in a global session server after the web page is built).

Courts fails to teach the limitation further including the said designated times being a function of a predetermined time interval since a last write to said database of data for said sessions.

However, Dharmarajan teaches a method and apparatus for encoding session data utilized by a server computer (see abstract). Dharmarajan teaches the use of a

session timer based on the last transmission sent and that session timer being set to elapse after a predetermined amount of time (col. 13, lines 3-35).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Courts in view of Dharmarajan to use designated times being a function of a predetermined time interval since a last write to said database of data for said sessions. One would be motivated to do so because it allows for the data to be periodically written to the database (col. 13, lines 42-45).

Regarding claim 12, Courts and Dharmarajan teach the method of claim 11 further comprising the step of:

(3) writing in said database a copy of said session data for each said http session at the time the http session is initiated (Courts, col. 9, lines 36-52).

Regarding claim 13, Courts and Dharmarajan teach the method of claim 11 wherein said server system services the World Wide Web (col. 5, lines 8-13, Courts discloses the global session server providing information to servers in the web system).

Regarding claim 16, Courts and Dharmarajan teach the method of claim 11 wherein said time interval is configurable (Dharmarajan, col. 13, lines 3-35).

8. Claims 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Courts et al. and Dharmarajan further in view of Prabandham et al., U.S. Patent No. 6,701,438.

Courts teaches the invention substantially as claimed including a system and method for maintaining states for user sessions with a web system (see abstract). Dharmarajan teaches the invention substantially as claimed including a method and apparatus for encoding session data utilized by a server computer (see abstract)

As to claim 14, Courts and Dharmarajan teach the method of claim 11. Courts and Dharmarajan fail to teach the limitation further including the method of claim 11 wherein said server system comprises a plurality of Java Virtual Machines (JVMS) running on a plurality of servers, and wherein said data for said sessions comprises an HttpSession object of a Java servlet application program interface (API).

However, Prabandham teaches methods and apparatus for providing customizable security and logging modules in a server environment (see abstract). Prabandham teaches the use of Java servlets, dealing with http requests, in Java Virtual Machines on servers (col. 5, lines 42-67; col. 6, lines 1-7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Courts and Dharmarajan in view of Prabandham to use Java Virtual Machines and sessions comprising an HttpSession object of a Java servlet API. One would be motivated to do so because it allows for dynamic content and interactivity.

Regarding claim 17, Courts teaches the method of claim 14 further comprising the step of:

(4) polling said session objects stored in said memories local to said JVMs to determine if they have been updated since the last time step (2) was performed; and wherein, in step (2), only copies of said HttpSession objects that have been updated within said predetermined time interval are written to said database (col. 2, lines 54-61, col. 9, lines 36-52).

9. Claims 18-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Courts et al., U.S. Patent No. 6,076,108, in view of Prabandham et al., U.S. Patent No. 6,701,438, further in view of Yashiro et al., U.S. Patent No. 5,954,822.

Courts teaches the invention substantially as claimed including a system and method for maintaining states for user sessions with a web system (see abstract).

As to claim 18, Courts teaches a server system comprising:

at least one server including a local memory (col. 9, lines 30-35, Courts discloses state information stored as session data in the session cache);

a second memory having a database, said memory being accessible (col. 9, lines 36-52, Courts discloses session data stored in a global session server after the web page is built);

a first computer program adapted to store in a memory local to said server running (col. 9, lines 30-52);

a second computer program adapted to write to said database a copy (col. 9, lines 30-52).

Courts fails to teach the limitation further including a plurality of Java Virtual Machines (JVMs) running on at least one server; storing HttpSession objects for http sessions being handled by JVMs; a program storing JVM HttpSession data for each http session handled by said JVM; writing a copy of the HttpSession data for each http session at a designated times, said designated times determined as a function of at least one of (a) the number of times the HttpSession object data is updated in said local memory and (b) the number of times an http request in said http session is serviced.

However, Prabandham teaches methods and apparatus for providing customizable security and logging modules in a server environment (see abstract). Prabandham teaches the use of Java servlets, dealing with http requests, in Java Virtual Machines on servers (col. 5, lines 42-67; col. 6, lines 1-7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Courts in view of Prabandham to use a plurality of Java Virtual Machines (JVMs) running on at least one server; storing HttpSession objects for http sessions being handled by JVMs; a program storing JVM HttpSession data for each http session handled by said JVM; and writing a copy of the HttpSession data for each http session. One would be motivated to do so because it allows for dynamic content and interactivity.

Courts and Prabandham fail to teach the limitation further including said designated times determined as a function of at least one of (a) the number of times the HttpSession object data is updated in said local memory and (b) the number of times an http request in said http session is serviced.

However, Yashiro teaches a disk array apparatus that only calculates new parity after a predetermined number of write requests (see abstract). Yashiro teaches the use of backing up data after it is updated a predetermined number of times (col. 6, lines 30-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Courts and Prabandham in view of Yashiro to use designated times determined as a function of at least one of (a) the number of times the HttpSession object data is updated in said local memory and (b) the number of times an http request in said http session is serviced. One would be motivated to do so because it is unnecessary to write to a database at every update (col. 6, lines 53-55).

Regarding claim 19, Courts, Prabandham, and Yashiro teach the server system of claim 18 wherein said second computer program is adapted to write said HttpSession object data to said database after X HttpSession updates in said local memory, where X is an integer greater than or equal to 2 (Courts, col. 9, lines 30-52).

Regarding claim 20, Courts, Prabandham, and Yashiro teach the server system of claim 18 wherein said second computer program is adapted to write said HttpSession object data to said database after X http requests in said http sessions, where X is an integer greater than or equal to 2 (Courts, col. 9, lines 30-52).

Regarding claim 21, Courts, Prabandham, and Yashiro teach the server system of claim 18 further comprising a third computer program adapted to store in said database a copy of said HttpSession object data for each said http session at the time the http session is created (Courts, col. 9, lines 30-52).

Regarding claim 22, Courts, Prabandham, and Yashiro teach the server system of claim 21 wherein said plurality of JVMs are running on a plurality of servers (Prabandham, col. 5, line 42 - col. 6, line 7).

Regarding claim 24, Courts, Prabandham, and Yashiro teach teaches the server system of claim 18 wherein said writes to said database are performed at the end of a first servlet service method of a corresponding http session received after said designated time (Prabandham discloses an http response logged at the end of a servlet, col. 6, lines 8-14).

10. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Courts, Prabandham, and Yashiro further in view of Ng et al., U.S. Patent No. 6,745,387.

Courts teaches the invention substantially as claimed including a system and method for maintaining states for user sessions with a web system (see abstract). Prabandham teaches the invention substantially as claimed including methods and apparatus for providing customizable security and logging modules in a server environment (see abstract). Yashiro teaches the invention substantially as claimed

including a disk array apparatus that only calculates new parity after a predetermined number of write requests (see abstract).

As to claim 23, Courts, Prabandham, and Yashiro teach the server system of claim 22.

Courts, Prabandham, and Yashiro fail to teach the limitation further wherein said Java servlet APIs are J2EE servlet APIs.

However, Ng teaches the use of J2EE (col. 3, lines 8-28).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Courts, Prabandham, and Yashiro in view of Ng to use J2EE servlet APIs. One would be motivated to do so because it is a well-known and used platform for constructing Java technology based applications.

### ***Response to Arguments***

11. In view of the appeal brief filed on October 5, 2007, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth above.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.



If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,385,642 to Chlan et al.

U.S. Pat. No. 5,951,643 to Shelton et al.

U.S. Pat. No. 6,098,093 to Bayeh et al.

U.S. Pat. No. 6,052,730 to Felciano et al.

U.S. Pat. No. 6,615,235 to Copeland et al.

U.S. Pat. No. 6,308,212 to Besaw et al.

U.S. Pat. No. 6,684,390 to Goff

U.S. Pat. No. 6,584,548 to Bourne et al.

U.S. Pat. No. 6,178,439 to Feit

U.S. Pat. No. 6,539,494 to Abramson et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Avi Gold whose telephone number is 571-272-4002.

The examiner can normally be reached on M-F 8:00-5:30 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

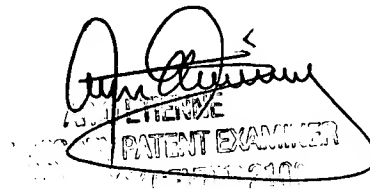
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Avi Gold

Patent Examiner

Art Unit 2157

AMG



A handwritten signature, likely of Ario Etienne, is written over a rectangular stamp. The stamp contains the text "PATENT EXAMINER" in a bold, sans-serif font. The signature is written in a cursive style, with the name "Ario Etienne" being legible. The stamp is slightly tilted and has a thin border.